

## CLAIMS

What is claimed is:

1. A versatile customizable security and filtering software that can be installed on a computer and be used by a remote user who obtains anonymity on a global telecommunications network or by a local user, the software comprising:

(a) an administrative module that a user interacts with for creating user accounts and configuring those user accounts, and for configuring automated services,

the administrative module for accepting user inputs for configuration settings for inbound communications and for outbound communications, and having list maintenance functions including list editing, list deleting, searching of lists, saving of lists, proxy chaining routing, adding and deleting users, interchanging lists and importing and exporting lists,

said administrative module for configuring a range of access levels and being capable of creating three types of user accounts that have unique user names and passwords for each user account including an administrator account that is self-configuring and that controls automated services and selects for each account hard filtering or soft filtering, regular accounts with administrative privileges other than the privilege to create additional accounts, view information on any other accounts or configure automated services and regular accounts without administrative privileges and in addition a fourth type of user account namely one anonymous guest user account to be used in a manual launch of the software by general users who have no system-based user name or password,

the administrative module for storing as encrypted files on hardware memory the configurations of the range of access levels for the user accounts created and the configurations of the automated services

(b) an application server including

(i) a domain filtering engine capable of using from the encrypted files a friendly outbound list and an unfriendly outbound list only one of which is active at any given time and an outbound exception list, and using a friendly inbound list and an unfriendly inbound list only one of which is active at any given time, and a domain inbound exception list, the friendly outbound list, the unfriendly outbound list, the friendly inbound list, the unfriendly inbound list, the outbound exception list, the domain inbound exception list, a friendly e-mail list and an unfriendly e-mail list being uniquely configured for each user account,

the domain filtering engine capable of registering the request in a logfile of all web sites requested by a user and capable of performing domain filtering, said domain filtering including for inbound requests checking the identity of a requesting remote client against the friendly inbound or unfriendly inbound list and domain inbound exception list maintained in the encrypted files and including for outbound requests checking local user and remote user requested domains, URLs and links against the friendly outbound list, unfriendly outbound list and outbound exception list and then with respect to both inbound and outbound requests for hard filtering unless overruled by the outbound exception list or domain inbound exception list either approving the request, terminating the request or terminating and re-routing the request without the knowledge of the user, and for soft filtering unless overruled by the outbound exception list or domain inbound exception list passing disapproved requests and sending an e-mail alert to

authorized recipients regarding the disapproved request, and

(ii) a content filtering engine capable of performing content filtering including checking a content of a requested document against a friendly content inbound list, an unfriendly content inbound list, and a content exception list taken from the encrypted files, the friendly content inbound list, the unfriendly content inbound list, only one of the friendly content inbound list and the unfriendly content inbound list being active at any given time, and the content exception list being uniquely configured by each user, and then for hard filtering against the unfriendly content inbound list either passing the requested document if the content of the requested document is not on the unfriendly content inbound list or unless overruled by the content exception list rejecting the requested document if the content of the requested document is on the unfriendly content inbound list and for hard filtering against the friendly content inbound list either unless overruled by the content exception list passing the requested document if the content of the requested document is on the friendly content inbound list or rejecting the requested document if the content of the requested document is not on the friendly content inbound list and for soft filtering against the unfriendly content inbound list either approving the content of the requested document and passing the requested document if the content is not on the unfriendly content inbound list or unless overruled by the content exception list rejecting the content of the requested document and passing a remainder of the requested document if the content is on the unfriendly content inbound list and for soft filtering against the friendly content inbound list either unless overruled by the content exception list passing the requested document if the content is not on the friendly content inbound list or passing the requested document and highlighting the content of the requested document if the content is on the friendly content

inbound list, said content filtering also including e-mail filtering that checks a subject, a sender's address and a sender's domain against an unfriendly e-mail list, a friendly e-mail list and an e-mail exception list,

the application server acting internally to communicate with the domain filtering engine and with the content filtering engine and acting externally as a proxy server that receives requests from HTTP clients, forwards the requests to servers, receives a server response and forwards the server response to the HTTP clients.

2. The software of claim 1, wherein the domain filtering engine also has an optional e-mail alert system for hard filtering and for soft filtering.

3. The software of claim 1, wherein the content filtering engine has an inbound privacy shield for blocking scripting language functions for particular user accounts and where the domain filtering engine has an outbound privacy shield for blocking disapproved character strings representing confidential information.

4. The software of claim 1, wherein the content filtering engine, when performing hard filtering, can also replace a requested document that has been rejected with a replacement document selected by a user of the administrator account

5. The software of claim 1, wherein the content filtering engine includes a pop up blocker

# *Hogless and Highly Accurate Security Filtering Software*

6. The software of claim 1, including an automated scheduler that controls a launching of the application server automatically and decides which user account to activate and when to shut off an access to a world wide web, and includes an automated list updater that updates the friendly inbound list, the unfriendly inbound list, the friendly outbound list and the unfriendly outbound lists for each user account from links on the web.

7. The software of claim 1, wherein inbound communications are arranged so that an actual location of a highly sensitive resource is located in an unpublished location that is a replacement location to which requests rejected by the application server are rerouted, wherein approved users are listed in the application server in the unfriendly inbound list and are sent by the application server to the replacement location, and wherein unapproved users are not listed in the unfriendly inbound list and have their request sent to a published address that contains harmless information.

8. The system of claim 7, wherein the range of access levels ranges from maximum 100% access to full suspension.

9. The software of claim 1, wherein the administrative module includes an editor, the editor including an editing pane, said editor also including an encryption function that generates one or more secret symmetric encryption keys, the one or more encryption keys being uniquely associated with a text inputted by a user in the editing pane, said encryption function capable of encrypting at the user's option all or only a portion of an e-mail message and all or only a portion

of an e-mail message attachment file and said encryption function also capable of encrypting all or a combination of files on a hard drive local to the software.

10. The software of claim 1, wherein the application server, instead of acting externally as a proxy server, acts externally within a deployment of a chain of proxy servers, said chain of proxy servers including at least a first proxy server that receives requests from HTTP clients and forwards the requests through a zero or more intermediary proxy servers to a last proxy server, said last proxy server forwarding the requests to servers, and wherein the last proxy server receives a server response and forwards the server response through the zero or more intermediary proxy servers back to the first proxy server, which first proxy server forwards the server response to HTTP clients.

11. The software of claim 1, wherein the administrative module is also capable of configuring an automated configuration script file for accessing the global telecommunications network.

12. The software of claim 1, wherein for e-mail filtering includes an option of hard e-mail filtering in which an incoming e-mail is deleted from a user e-mail inbox and includes an option for soft filtering in which an incoming e-mail remains in the user e-mail inbox but is inaccessible to the user.

13. A versatile customizable security and filtering software, comprising:

(a) an administrative module that a user interacts with for creating user accounts and configuring those user accounts, and for configuring automated services,

the admin module for accepting user inputs for configuration settings for inbound communications and for outbound communications, and having list maintenance functions including list editing, list deleting, searching of lists, saving of lists, proxy chaining routing, adding and deleting users, interchanging lists and importing and exporting lists,

said administrative module for configuring a range of access levels and being capable of creating three types of user accounts that have unique user names and passwords for each user account including an administrator account that is self-configuring and that controls automated services and selects for each account hard filtering or soft filtering, regular accounts with administrative privileges other than the privilege to create additional accounts, view information on any other accounts or configure automated services and regular accounts without administrative privileges and in addition a fourth type of user account namely one anonymous guest user account to be used in a manual launch of the software by general users who have no system-based user name or password,

the admin module for storing as encrypted files on hardware memory the configurations of the range of access levels for the user accounts created and the configurations of the automated services

(b) an application server including

(i) a domain filtering engine capable of using from the encrypted files a friendly outbound list and an unfriendly outbound list only one of which is active at any given time and an outbound exception list, and using a friendly inbound list and an unfriendly inbound list only one

of which is active at any given time, and a domain inbound exception list, the friendly outbound list, the unfriendly outbound list, the outbound exception list, the domain inbound exception list, a friendly e-mail list and an unfriendly e-mail list being uniquely configured for each user account, the domain filtering engine capable of registering the request in a logfile of all web sites requested by a user and capable of performing domain filtering, said domain filtering including domain inbound exception list maintained in the encrypted files and including for outbound requests checking local user and remote user requested domains, URLs and links against the friendly outbound list, unfriendly outbound list and outbound exception list and then with respect to outbound requests for hard filtering unless overruled by the outbound exception list or domain inbound exception list either approving the request, terminating the request or terminating and re-routing the request without the knowledge of the user, and for soft filtering unless overruled by the outbound exception list or domain inbound exception list passing disapproved requests and sending an e-mail alert to authorized recipients regarding the disapproved request, and

(ii) a content filtering engine capable of performing content filtering including checking a content of a requested document against a friendly content inbound list, an unfriendly content inbound list, and a content exception list taken from the encrypted files, the friendly content inbound list, the unfriendly content inbound list, only one of the friendly content inbound list and the unfriendly content inbound list being active at any given time, and the content exception list being uniquely configured by each user, and then for hard filtering against the unfriendly content inbound list either passing the requested document if the content of the requested document is not on the unfriendly content inbound list or unless overruled by the



content exception list rejecting the requested document if the content of the requested document is on the unfriendly content inbound list and for hard filtering against the friendly content inbound list either unless overruled by the content exception list passing the requested document if the content of the requested document is on the friendly content inbound list or rejecting the requested document if the content of the requested document is not on the friendly content inbound list and for soft filtering against the unfriendly content inbound list either approving the content of the requested document and passing the requested document if the content is not on the unfriendly content inbound list or unless overruled by the content exception list rejecting the content of the requested document and passing a remainder of the requested document if the content is on the unfriendly content inbound list and for soft filtering against the friendly content inbound list either unless overruled by the content exception list passing the requested document if the content is not on the friendly content inbound list or passing the requested document and highlighting the content of the requested document if the content is on the friendly content inbound list, said content filtering also including e-mail filtering that checks a subject, a sender's address and a sender's domain against an unfriendly e-mail list, a friendly e-mail list and an e-mail exception list,

the application server acting internally to communicate with the domain filtering engine and with the content filtering engine and acting externally as a proxy server that receives requests from HTTP clients, forwards the requests to servers, receives a server response and forwards the server response to the HTTP clients.

14. A versatile customizable security and filtering software, comprising:

(a) an administrative module that a user interacts with for creating user accounts and configuring those user accounts, and for configuring automated services,

the admin module for accepting user inputs for configuration settings for inbound communications, and having list maintenance functions including list editing, list deleting, searching of lists, saving of lists, proxy chaining routing, adding and deleting users, interchanging lists and importing and exporting lists,

said administrative module for configuring a range of access levels and being capable of creating three types of user accounts that have unique user names and passwords for each user account including an administrator account that is self-configuring and that controls automated services and selects for each account hard filtering or soft filtering, regular accounts with administrative privileges other than the privilege to create additional accounts, view information on any other accounts or configure automated services and regular accounts without administrative privileges and in addition a fourth type of user account namely one anonymous guest user account to be used in a manual launch of the software by general users who have no system-based user name or password,

the administrative module for storing as encrypted files on hardware memory the configurations of the range of access levels for the user accounts created and the configurations of the automated services

(b) an application server including a content filtering engine capable of performing content filtering including checking a content of a requested document against a friendly content inbound list, an unfriendly content inbound list, and a content exception list taken from the encrypted files, the friendly content inbound list, only one of the friendly content inbound list and the unfriendly

content inbound list being active at any given time, the unfriendly content inbound list and the content exception list being uniquely configured by each user, and then for hard filtering against the unfriendly content inbound list either passing the requested document if the content of the requested document is not on the unfriendly content inbound list or unless overruled by the content exception list rejecting the requested document if the content of the requested document is on the unfriendly content inbound list and for hard filtering against the friendly content inbound list either unless overruled by the content exception list passing the requested document if the content of the requested document is on the friendly content inbound list or rejecting the requested document if the content of the requested document is not on the friendly content inbound list and for soft filtering against the unfriendly content inbound list either approving the content of the requested document and passing the requested document if the content is not on the unfriendly content inbound list or unless overruled by the content exception list rejecting the content of the requested document and passing a remainder of the requested document if the content is on the unfriendly content inbound list and for soft filtering against the friendly content inbound list either unless overruled by the content exception list passing the requested document if the content is not on the friendly content inbound list or passing the requested document and highlighting the content of the requested document if the content is on the friendly content inbound list, said content filtering also including e-mail filtering that checks a subject, a sender's address and a sender's domain against an unfriendly e-mail list, a friendly e-mail list and an e-mail exception list,

the application server acting internally to communicate with the domain filtering engine and with the content filtering engine and acting externally as a proxy server that receives requests

from HTTP clients, forwards the requests to servers, receives a server response and forwards the server response to the HTTP clients.

15. A versatile customizable content security software, comprising:

an administrative module that a user interacts with for creating user accounts, for adding and deleting users and for storing as encrypted files on hardware memory the user accounts and wherein the administrative module includes an editor, the editor including an editing pane, said editor also including an encryption function that generates one or more secret symmetric encryption keys, the one or more encryption keys being uniquely associated with a text inputted by a user in the editing pane, said encryption function capable of encrypting at the user's option all or only a portion of an e-mail message and all or only a portion of an e-mail message attachment file and said encryption function also capable of encrypting all or a combination of files on a hard drive local to the software.